

AMENDMENT

Listing of Claims

Please amend the claims as follows:

1. (Cancelled)
2. (New) A blending pump comprising:
 - a fluid motor having a fluid motor rotatable motive element positioned within a fluid motor open chamber on an interior of the fluid motor, a fluid motor inlet channel and a fluid motor outlet channel in fluid communication with the fluid motor open chamber, and a drive axle connected to the fluid motor rotatable motive element and extending through the fluid motor;
 - a fluid pump having a fluid pump rotatable motive element positioned within a fluid pump open chamber on an interior of the fluid pump, a fluid pump inlet channel and a fluid pump outlet channel in fluid communication with the fluid pump open chamber, the fluid pump rotatable motive element of the fluid pump being operatively connected to the drive axle such that torque generated by the fluid motor rotatable motive element is translated to the fluid pump rotatable motive element in the fluid pump; and
 - a valve controlling a recirculation channel in fluid communication with the fluid pump,

wherein the fluid motor rotatable motive element and the fluid pump rotatable motive element provide a proportional fluid flow through the fluid motor and the fluid pump regardless of a rotation rate of the fluid motor rotatable motive element and a rotation rate of the fluid pump rotatable motive element.
3. (New) The blending pump of claim 2, wherein the fluid motor rotatable motive element and fluid pump rotatable motive element are selected from the group consisting of a gear, a vane, a screw, or a flexible rotor.
4. (New) The blending pump of claim 2, wherein the fluid motor rotatable motive element includes a plurality of tapered teeth.

5. (New) The blending pump of claim 3, wherein the fluid motor rotatable motive element and a fluid pump rotatable motive element have variable geometries relative to one another.
6. (New) The blending pump of claim 2, wherein at least one of the fluid motor open chamber and fluid pump open chamber has at least one of a tapered configuration, rounded configuration, cone-shaped configuration, and crescent-shaped configuration.
7. (New) The blending pump of claim 2, further comprising a first fluid source containing a pressurized first fluid connected to the fluid motor inlet channel and the fluid pump inlet channel is connected with a second fluid source.
8. (New) The blending pump of claim 2, further comprising a seal for preventing leakage between the fluid motor open chamber and the fluid pump open chamber.
9. (New) The blending pump of claim 2, wherein the re-circulation channel is in fluid communication with at least one of the fluid pump inlet channel and the fluid pump outlet channel.
10. (New) The blending pump of claim 2, wherein the valve is a needle valve adjustable utilizing a valve stem.
11. (New) The blending pump of claim 2, wherein the fluid pump is modular and removable from and connectable to one or more fluid motors.
12. (New) The blending pump of claim 2, wherein the fluid pump is pivotally mounted to the fluid motor.

13. (New) The blending pump of claim 2, further comprising a first drive train gear connected to the drive axle and operationally engaged with a second drive train gear connected to the fluid pump rotatable motive element by a pump drive axle.
14. (New) A blending pump, comprising
 - a fluid motor having a fluid motor rotatable, tapered motive element positioned within a fluid motor open chamber on an interior of the fluid motor, a fluid motor inlet channel and a fluid motor outlet channel in fluid communication with the fluid motor open chamber, and a drive axle connected to the fluid motor rotatable motive element and extending through the fluid motor; and
 - a fluid pump having a fluid pump rotatable motive element positioned within a fluid pump open chamber on an interior of the fluid pump, a fluid pump inlet channel and a fluid pump outlet channel in fluid communication with the open chamber, the fluid pump rotatable motive element operatively connected to the drive axle such that torque generated by the fluid motor rotatable motive element is translated to the fluid pump rotatable motive element,
 - wherein the fluid motor rotatable motive element and the fluid pump rotatable motive element provide a proportional fluid flow through the fluid motor and the fluid pump regardless of a rotation rate of the fluid motor rotatable motive element and a rotation rate of the fluid pump rotatable motive element.
15. (New) The blending pump of claim 14, wherein the fluid pump rotatable motive element is selected from the group consisting of a gear, a vane, a screw, or a flexible rotor.
16. (New) The blending pump of claim 14, wherein the fluid motor rotatable, tapered motive element and the fluid pump rotatable motive element have variable geometries relative to one another.

17. (New) The blending pump of claim 14, wherein at least one of the open chamber of the fluid motor and fluid pump is configured with at least one of a tapered configuration, rounded configuration, cone-shaped configuration, and crescent-shaped configuration.
18. (New) The blending pump of claim 14, further comprising a first fluid source containing a pressurized first fluid connected to the fluid motor inlet channel and the fluid pump inlet channel is connected with a second fluid source.
19. (New) The blending pump of claim 14, further comprising a seal for preventing leakage between the fluid motor open chamber and the fluid pump open chamber.
20. (New) The blending pump of claim 14, further comprising a valve controlling a recirculation channel in fluid communication with the fluid pump open chamber.
21. (New) The blending pump of claim 20, wherein the re-circulation channel is in fluid communication with the fluid pump inlet channel and fluid pump outlet channel.
22. (New) The blending pump of claim 14, wherein the valve is a needle valve adjustable utilizing a valve stem.
23. (New) The blending pump of claim 14, wherein the fluid pump is modular and may be removed from and connected to one or more fluid motors.
24. (New) The blending pump of claim 14, wherein the fluid pump is pivotally mounted to the fluid motor.

25. (New) The blending pump of claim 14, further comprising a first drive train gear connected to the drive axle and operationally engaged with a second drive train gear connected to the fluid pump rotatable motive element by a pump drive axle.

26. (New) A system for blending fluids, comprising:

a first fluid source providing a first fluid with a flow rate, the first fluid source connected through a fluid motor inlet channel to a fluid motor open chamber within an interior of a fluid motor, the fluid motor open chamber in fluid communication with a fluid motor outlet channel and having a fluid motor rotatable motive element connected with a drive axle, the flow rate providing a driving force for the fluid motor rotatable motive element;

a second fluid source providing a second fluid, the second fluid source connected through a fluid pump inlet channel to a fluid pump open chamber positioned within an interior of a fluid pump, the fluid pump open chamber in fluid communication with a fluid pump outlet channel and having a fluid pump rotatable motive element operatively connected to the drive axle such that torque generated by the fluid motor rotatable motive element is translated to the fluid pump rotatable motive element; and

a valve for controlling a recirculation channel in fluid communication with the fluid pump open chamber,

wherein the fluid motor rotatable motive element and the fluid pump rotatable motive element provide a proportional fluid flow of the first fluid through the fluid motor relative to the flow of the second fluid through fluid pump regardless of a rotation rate of the fluid motor rotatable motive element and a rotation rate of the fluid pump rotatable motive element.

wherein the first and second fluid are blended together through a fluid communication between the fluid motor outlet channel and the fluid pump outlet channel.

27. (New) The system of claim 26, wherein the fluid motor rotatable motive

element and fluid pump rotatable motive element are selected from the group consisting of a gear, a vane, a screw, or a flexible rotor.

28. (New) The system of claim 26, wherein the fluid motor rotatable motive element and fluid pump rotatable motive element include a plurality of tapered teeth.

29. (New) The system of claim 26, wherein the fluid motor rotatable motive element and the fluid pump rotatable motive element have variable geometries relative to one another.

30. (New) The system of claim 26, wherein at least one of the fluid motor open chamber and fluid pump open chamber has at least one of a tapered configuration, rounded configuration, cone-shaped configuration, and crescent-shaped configuration.

31. (New) The system of claim 26, further comprising a seal for preventing leakage between the fluid motor open chamber and the fluid pump open chamber.

32. (New) The system of claim 26, wherein the re-circulation channel is in fluid communication with the fluid pump inlet channel and the fluid pump outlet channel.

33. (New) The system of claim 26, wherein the valve is a needle valve adjustable utilizing a valve stem.

34. (New) The system of claim 26, wherein the fluid pump is modular and removable from and connectable to one or more fluid motors.

35. (New) The system of claim 26, wherein the fluid pump is pivotally

mounted to the fluid motor.

36. (New) The system of claim 26, further comprising a first drive train gear connected to the drive axle and operationally engaged with a second drive train gear connected to the fluid pump rotatable motive element by a pump drive axle.